

Prior Art
Figure 1A

Prior Art
Figure 1B

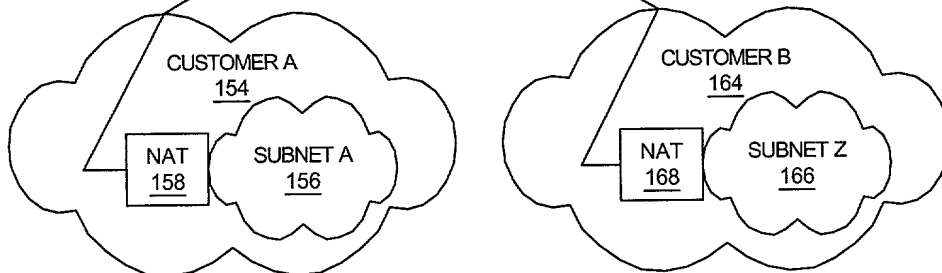
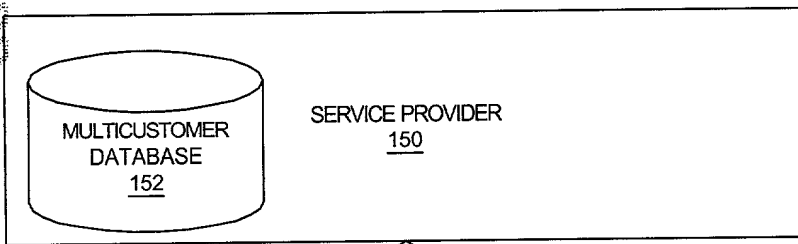
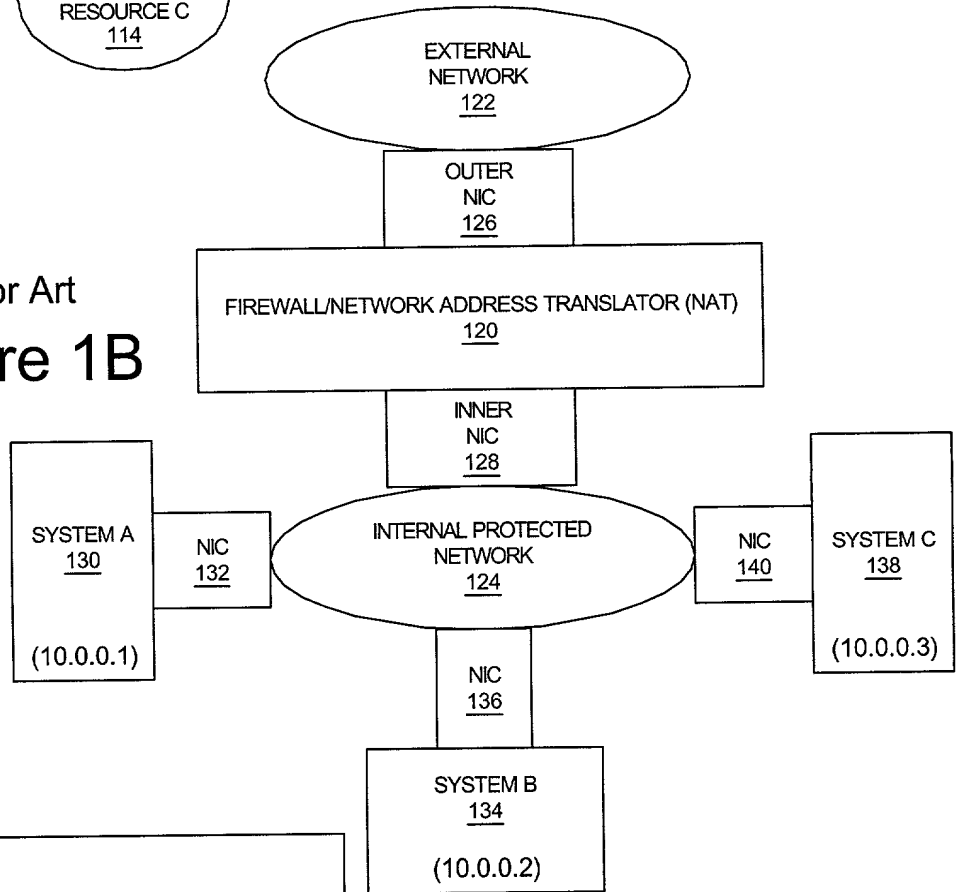


Figure 1C

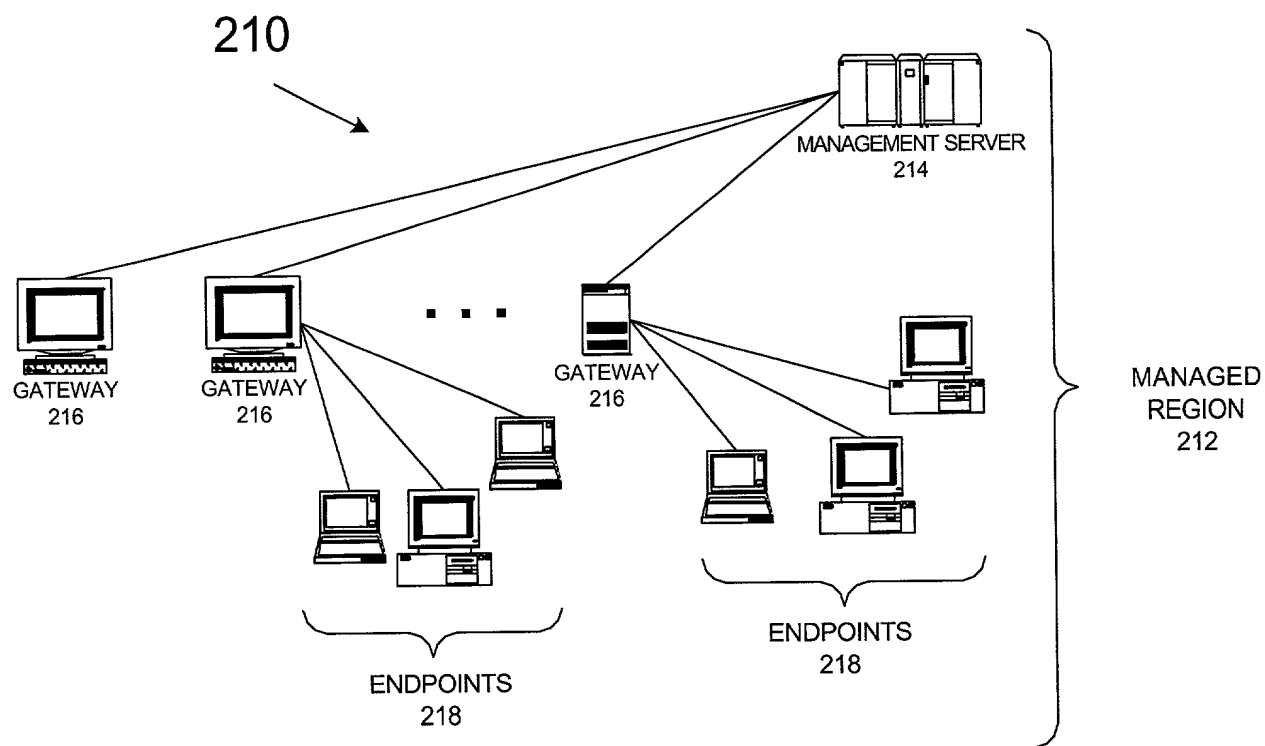


Figure 2A

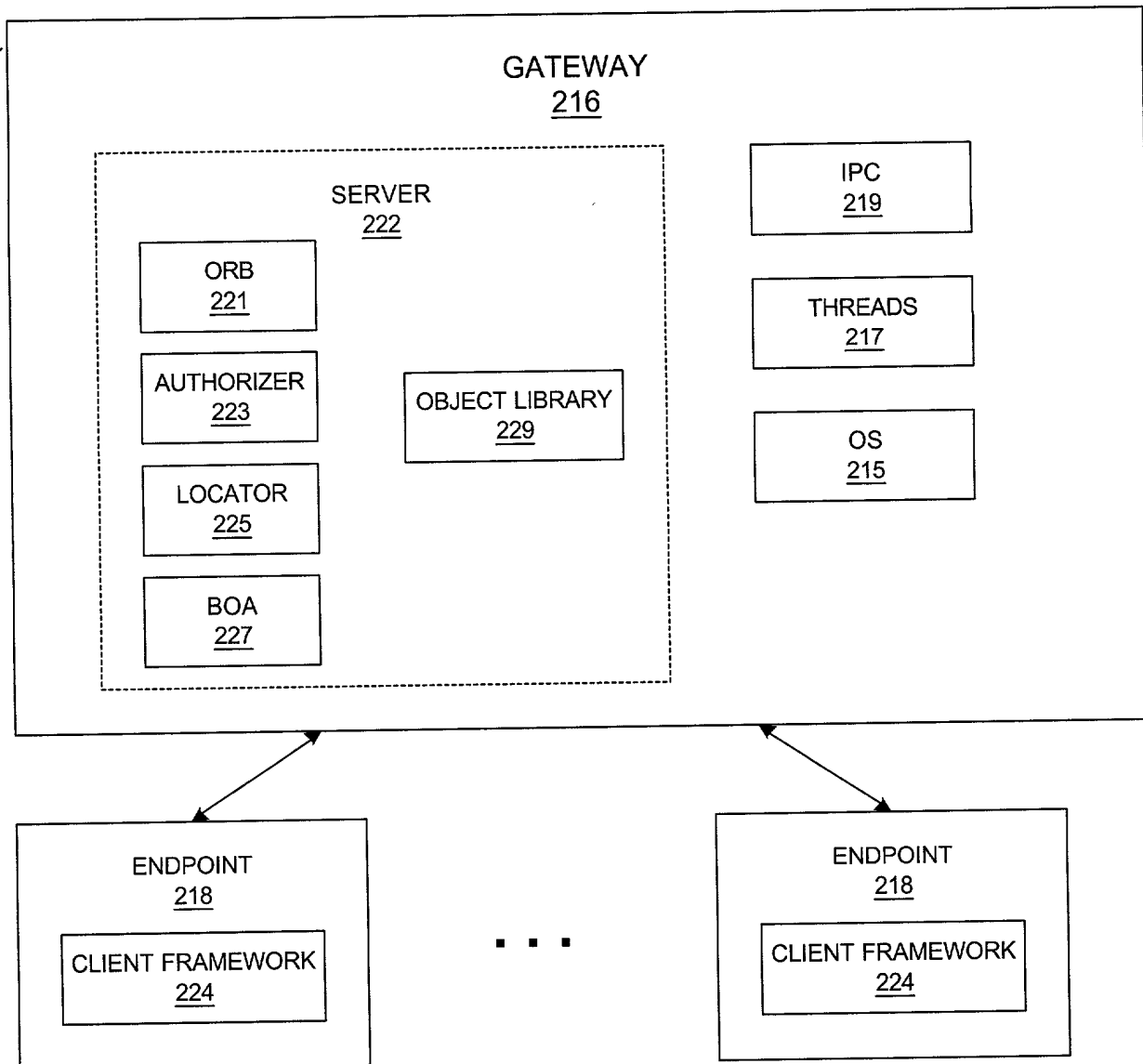


Figure 2B

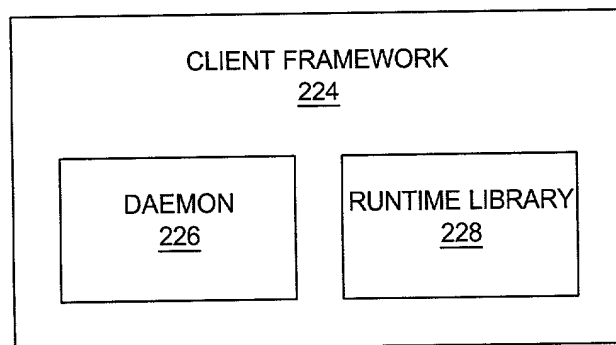


Figure 2C

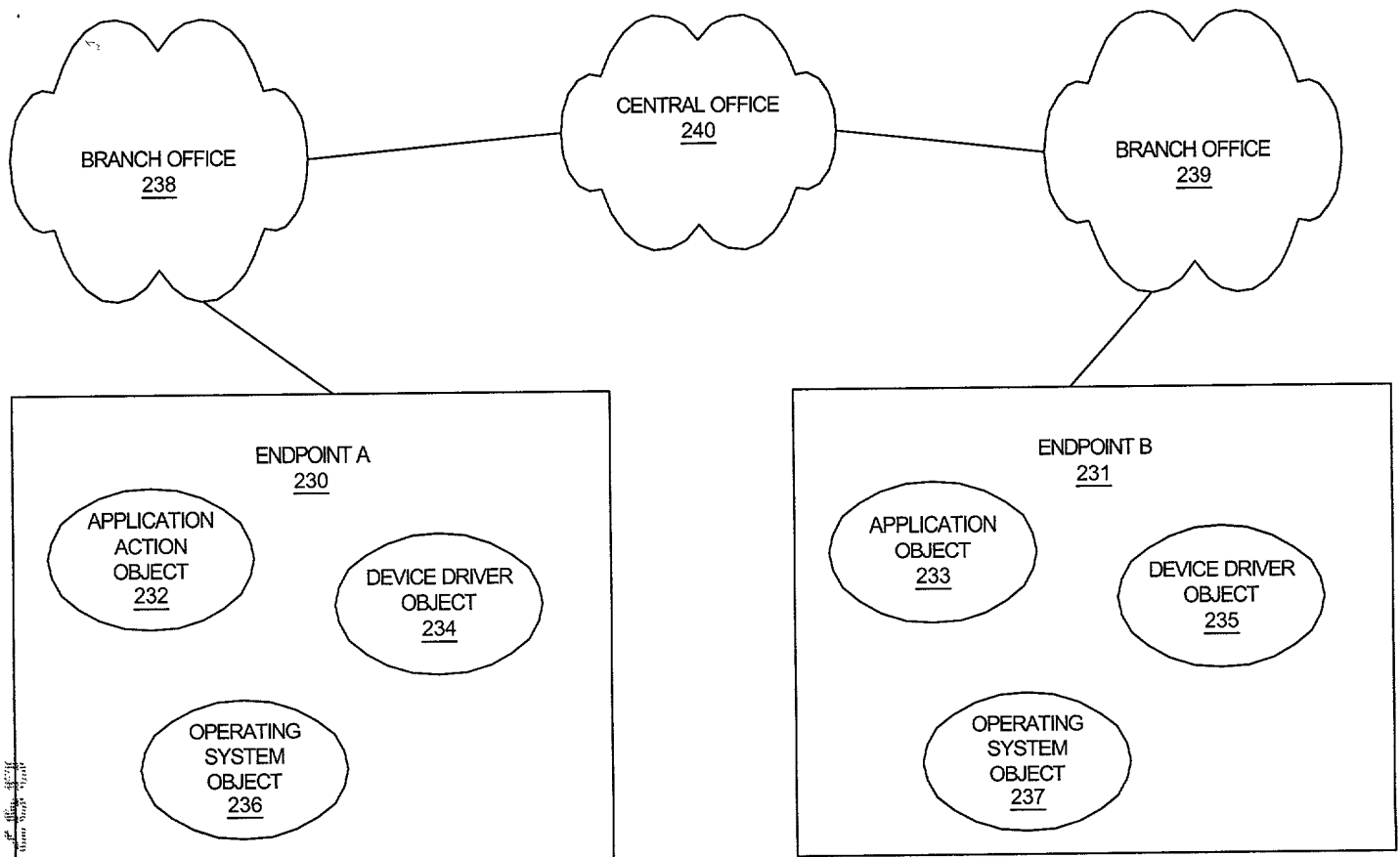


Figure 2D

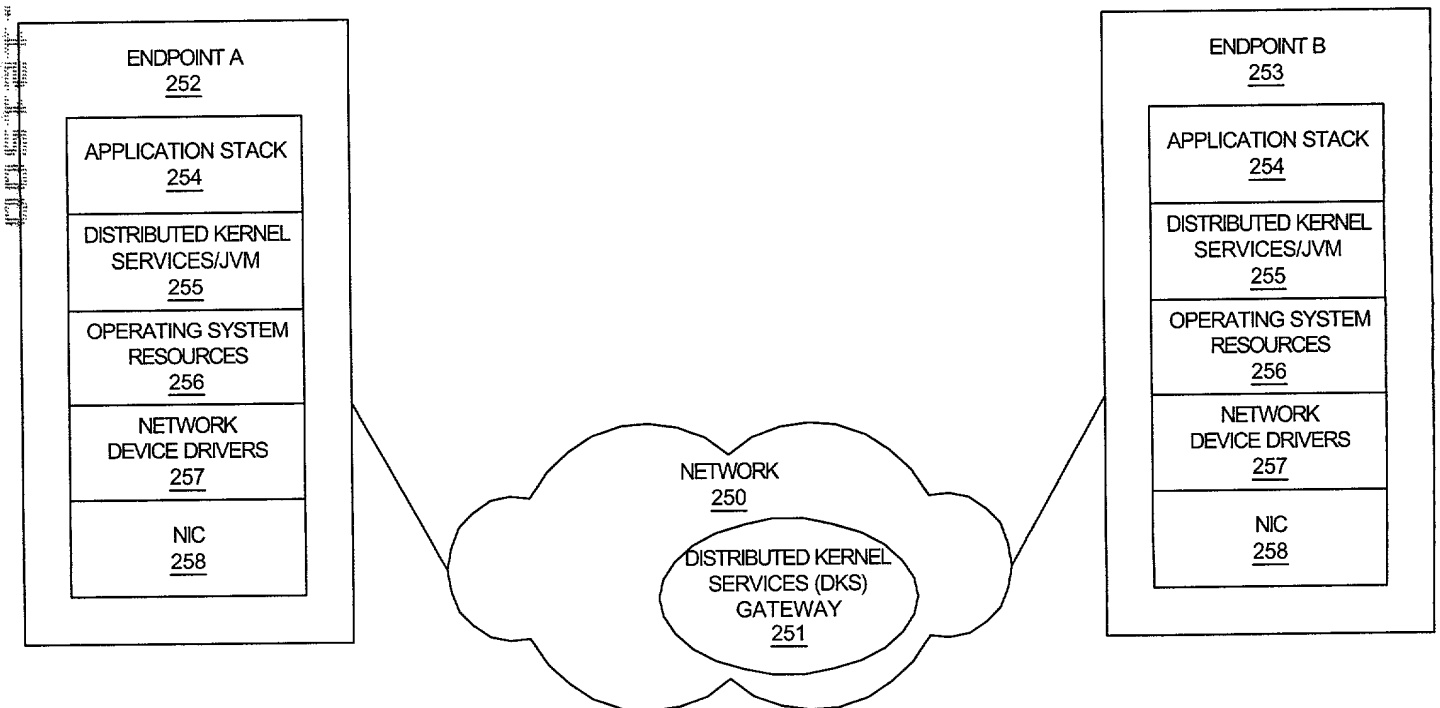


Figure 2E

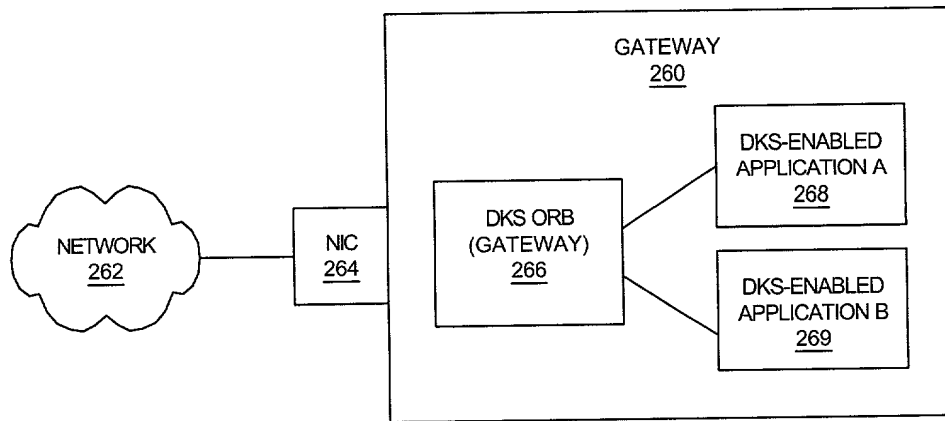


Figure 2F

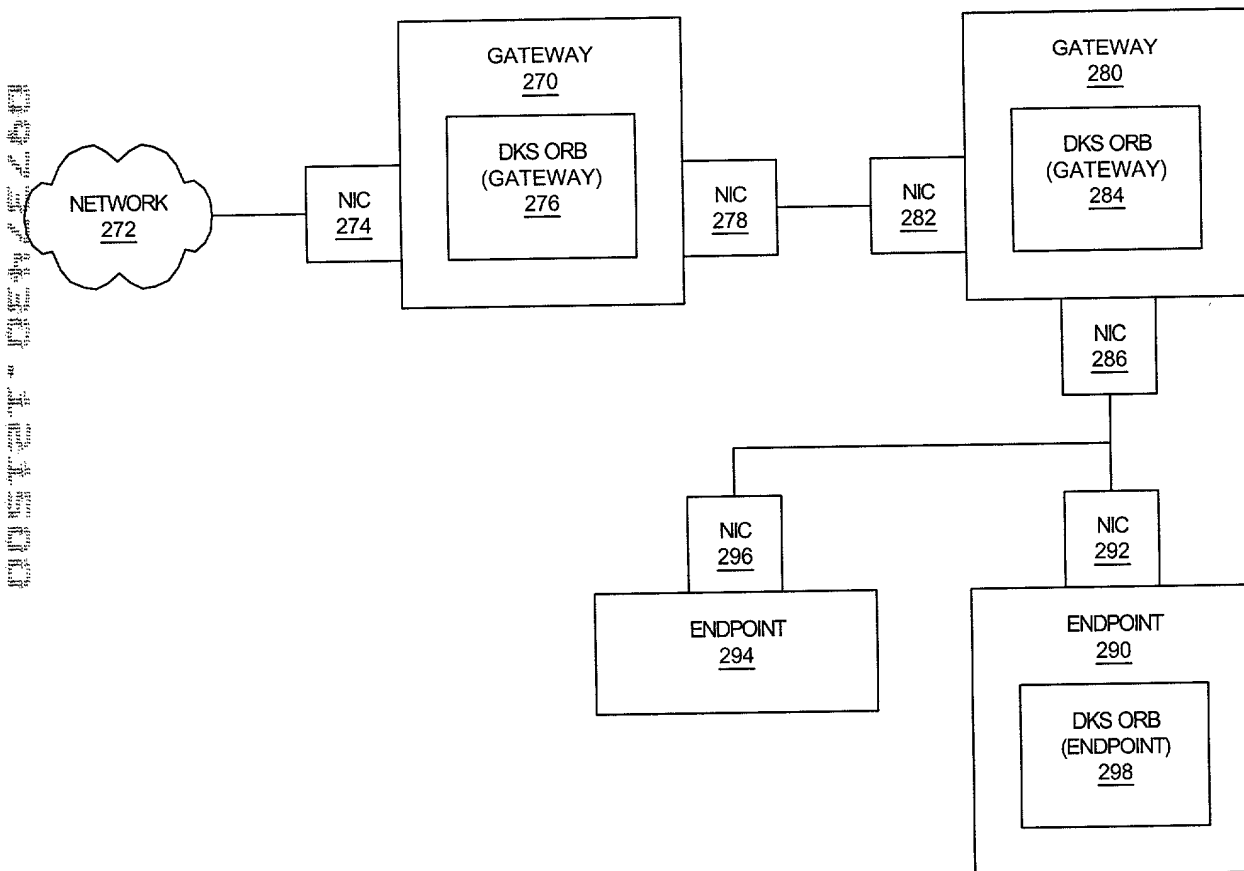


Figure 2G

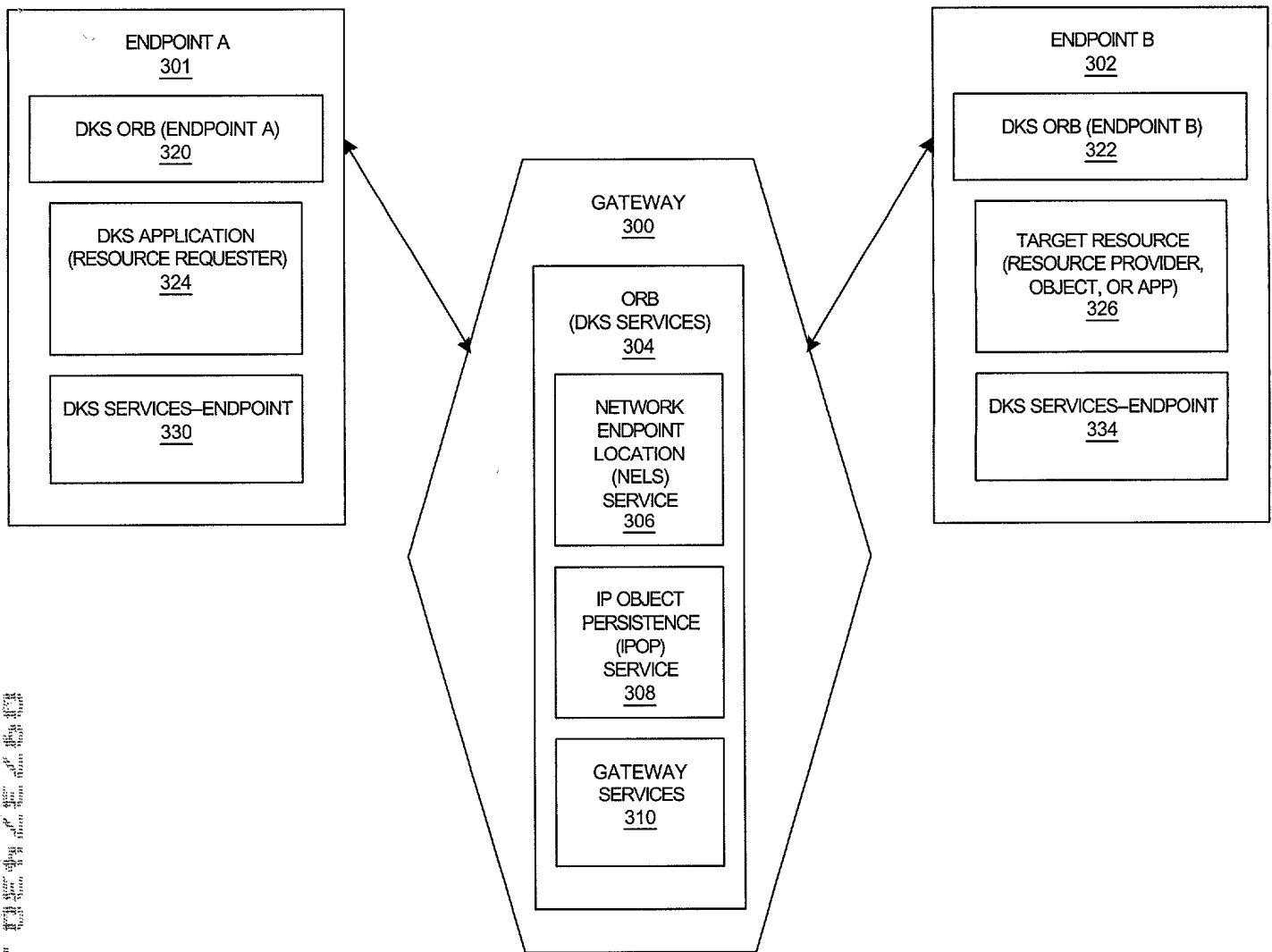


Figure 3

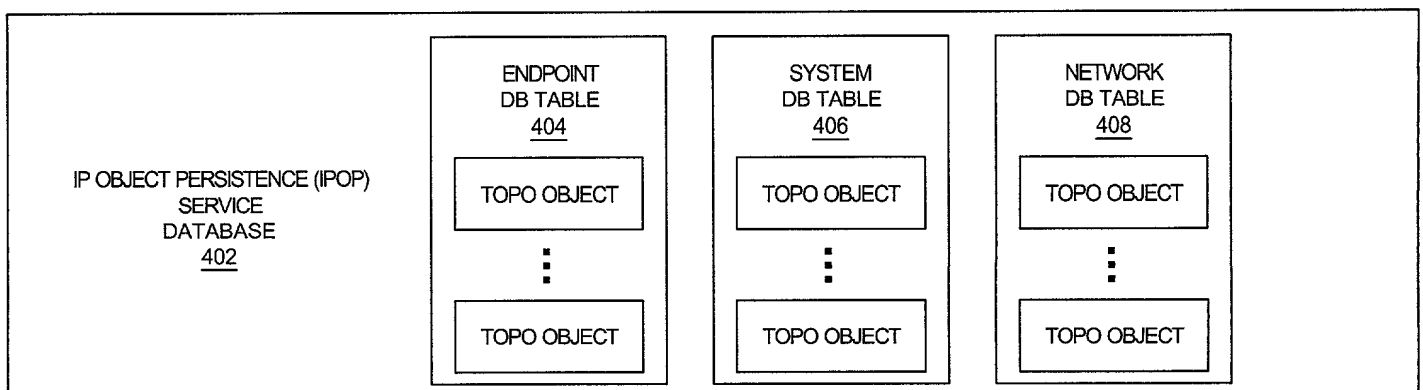


Figure 4

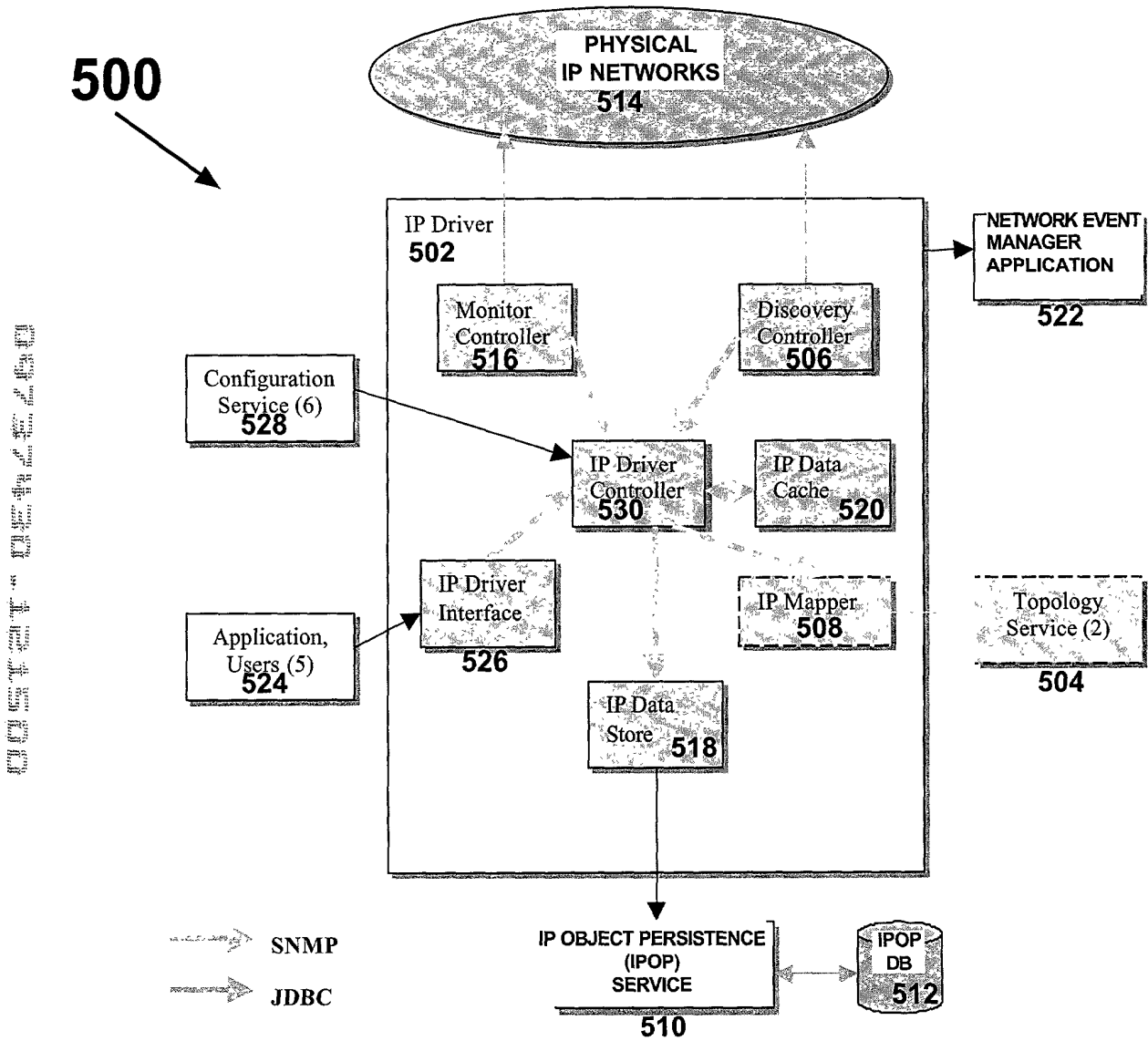


Figure 5A

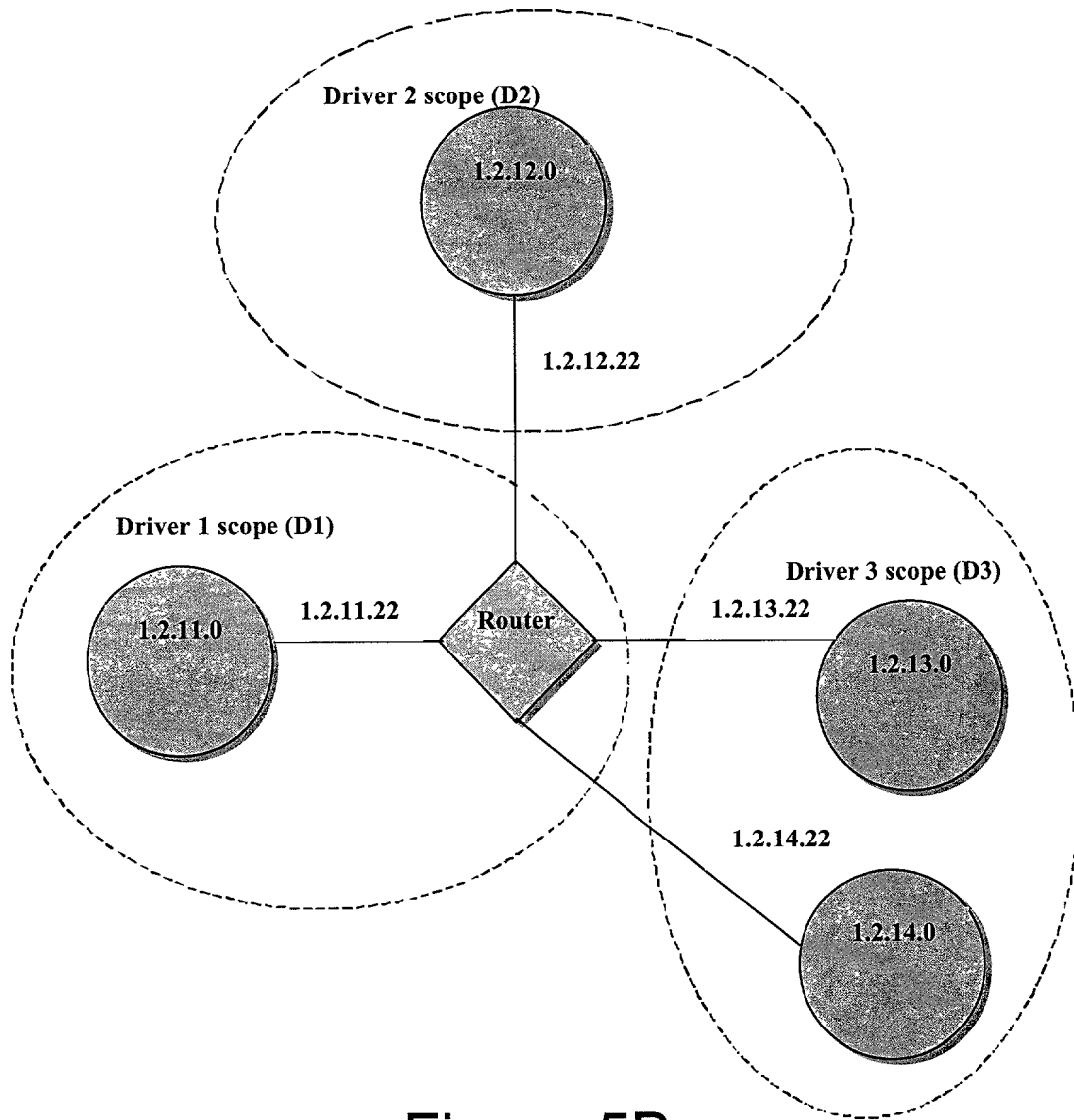


Figure 5B

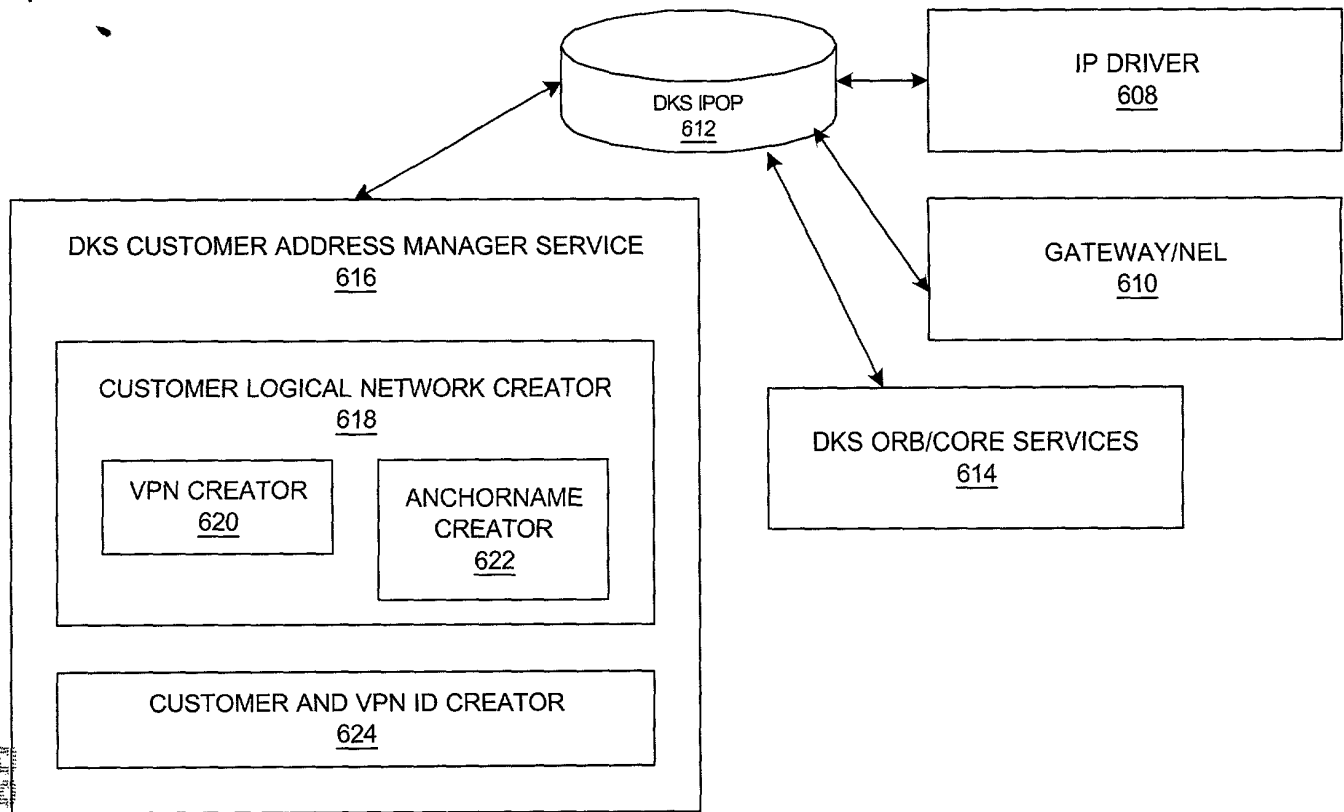


Figure 6A

```

Public Class IPActionObject {

    Endpoint sourceEP;
    Endpoint targetEP;

    // CONSTRUCTOR
    IPActionObject( Endpoint targetEP, Endpoint sourceEP ) {
        .
        .
        .
    }
    VOID performAction( ) // EXECUTES ACTION METHOD
    .
    .
    .
}

```

Figure 6B

```

Public Class Endpoint {

    //public variables
    long                EPObjectID;    //ID to object (both private and public network addresses)
    InetAddress          EPIPAddress;  //physical network address (private or public)
    long                EPVPN;         //virtual private network ID

    //get/set of variables
    public long          getObjectID( ) { ... }
    public InetAddress   getPAddress( ) { ... }
    public long          getVPN( ) { ... }

}

```

Figure 6C

```

Public Class EndpointCustomer extends Endpoint {

    public getVPNGW( ) {
        //gets the only gateway which has access to a particular private network
        .
        .
        .
    }
    //private variables only set/accessed by EP creator IPOP
    long    customerHashNumber;
    String  customerName;
    String  customerAnchorPath;
    Long    objectIoFPrivateGatewayRoute

}

```

Figure 6D

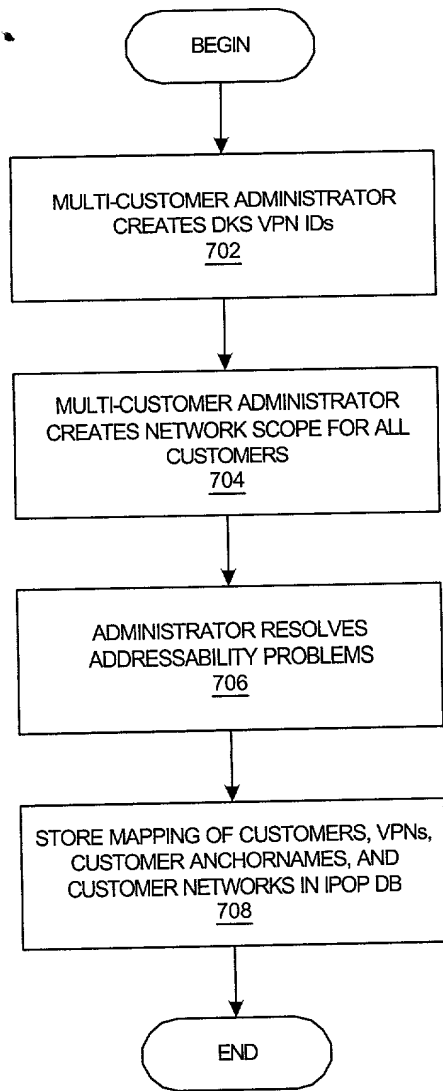


Figure 7A

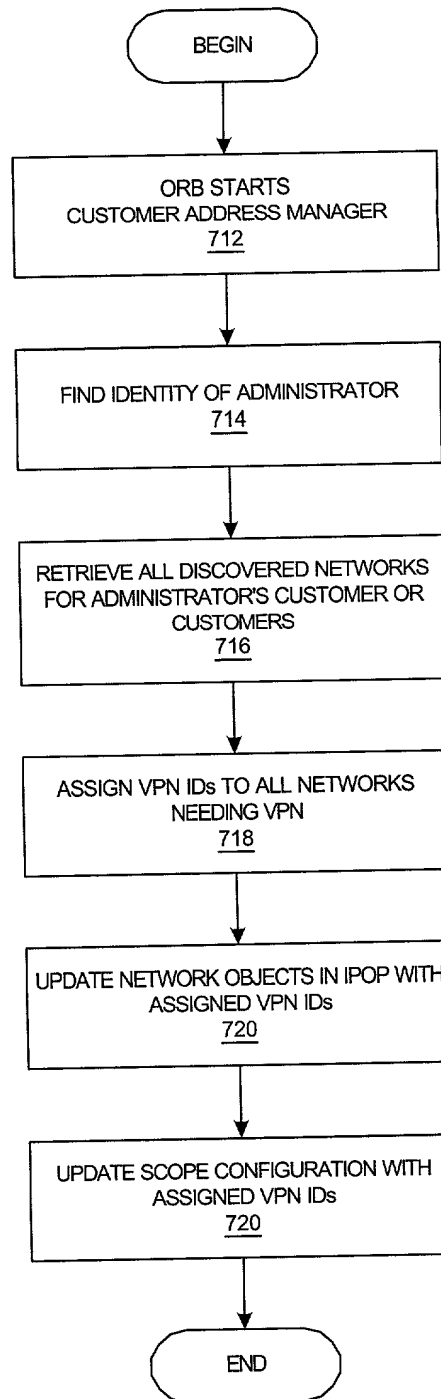


Figure 7B

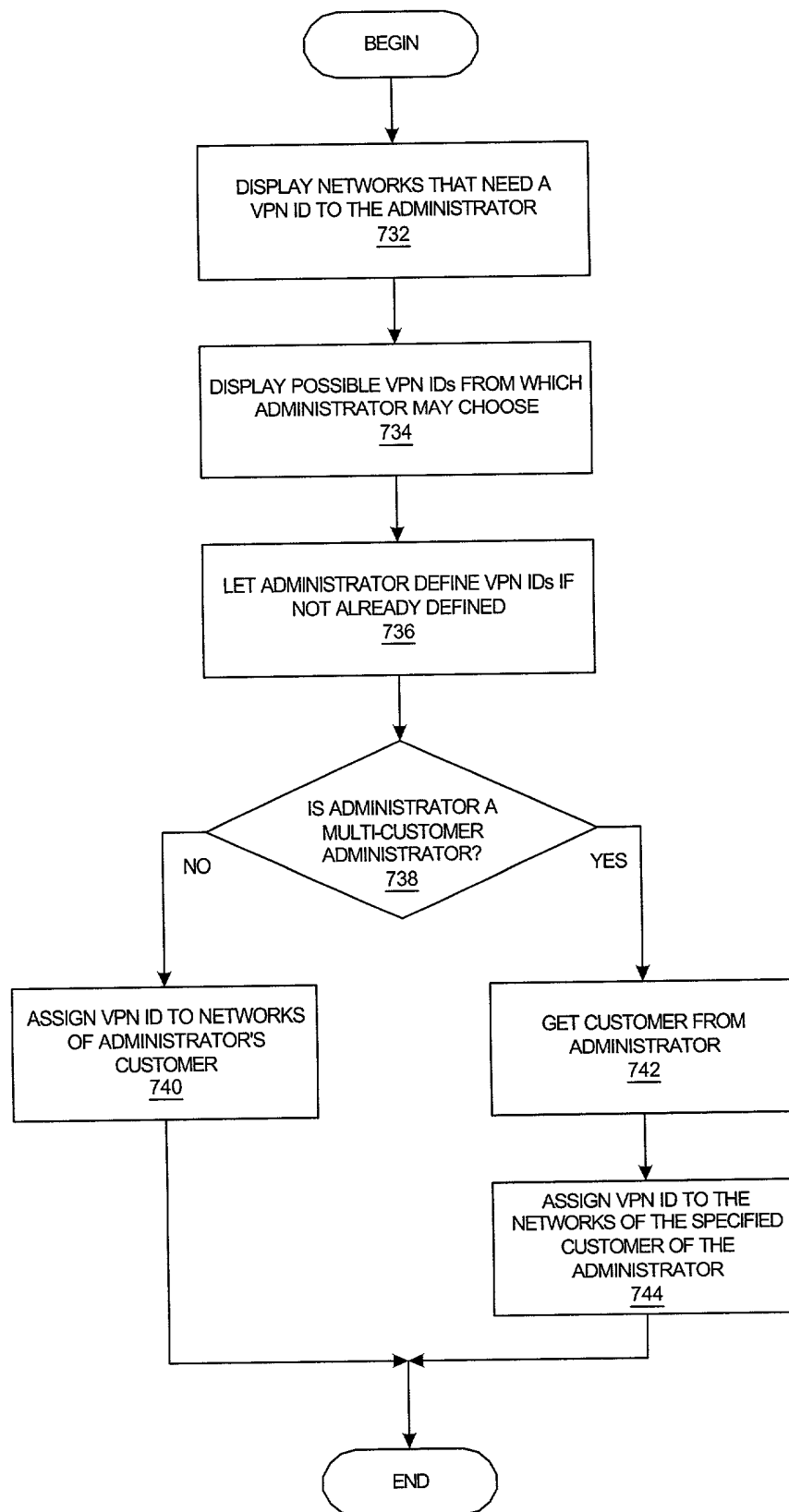


Figure 7C

Network Management Application

850

NETWORKS REQUIRING VPN CREATION--DUPLICATE ADDRESSES EXIST

PHYSICAL NETWORK ADDRESS: 10.7.205.103

CUSTOMER ANCHORNAME: AUSTIN\BLDG1

VPN ID:

852

856

870

☒

CHANGE VPN ID FOR ENTIRE SCOPE

878

SET

874

CLEAR

876

PHYSICAL NETWORK ADDRESS: 10.7.205.103

CUSTOMER ANCHORNAME: AUSTIN\BLDG2

VPN ID:

854

858

872

Figure 8

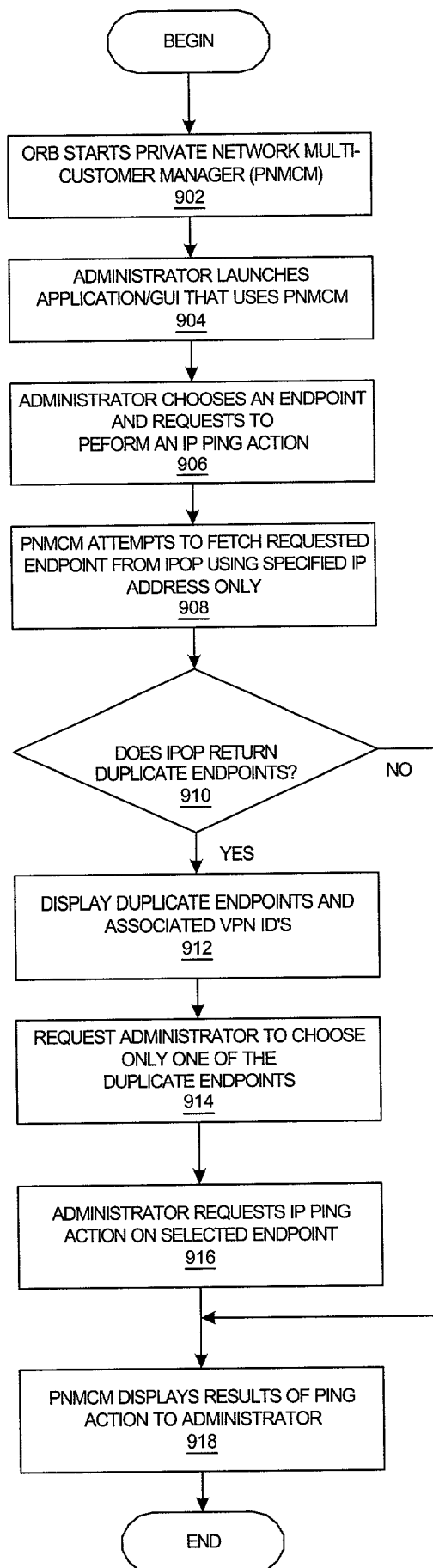


Figure 9A

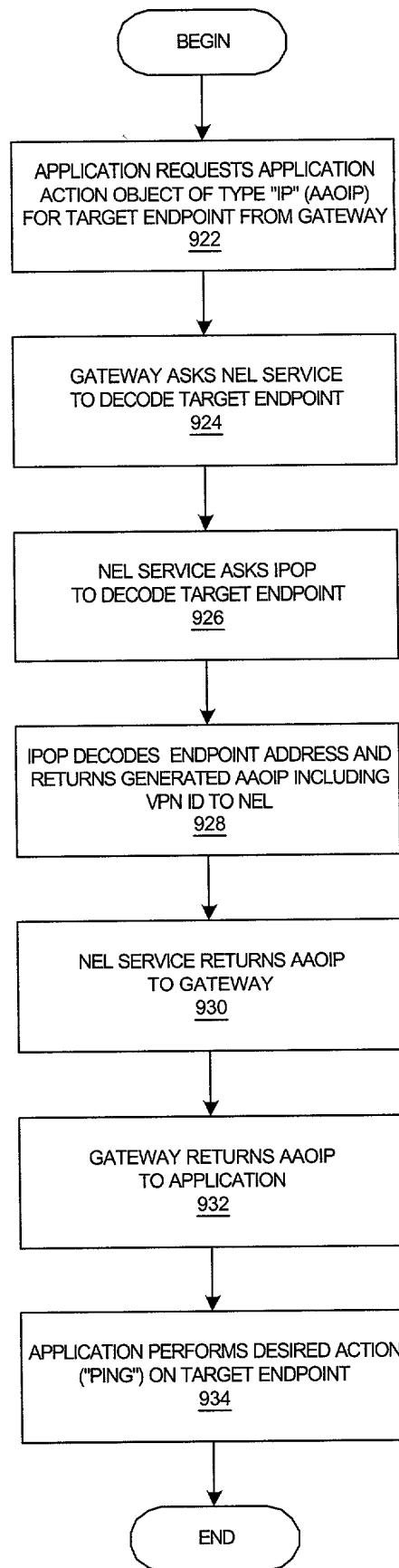


Figure 9B